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CLAIMS

1. A process for preparing a pearl based on expanded polymer and having a continuous skin, comprising the following successive steps:
- 5 a) extruding through a die an expandable composition comprising a thermoplastic polymer and an expanding agent, in melt form, to produce the expansion
- 10 b) cooling and chopping the expanded material obtained at the die outlet using a knife.
2. The process as claimed in claim 1, characterized in that the expanding agent is a gas that can disperse
- 15 or dissolve in the polymer melt.
3. The process as claimed in claim 1, characterized in that the expanding agent is a pore-forming agent.
- 20 4. The process as claimed in claim 1, characterized in that the expanding agent is a volatile compound that can dissolve in the polymer melt.
- 25 5. The process as claimed in claim 1, characterized in that the expanding agent is a chemical compound that can react chemically with the polymer by heating, to generate a gas.
- 30 6. The process as claimed in one of the preceding claims, characterized in that the polymer is a polyamide.
- 35 7. The process as claimed in one of the preceding claims, characterized in that the expandable composition comprises a nucleating agent and/or a surfactant and/or a plasticizer.
8. The process as claimed in one of the preceding

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claims, characterized in that the expandable composition comprises reinforcing fillers such as glass fibers, matting agents, pigments, dyes, heat or light stabilizers, bioactive agents, antisoiling agents and/or antistatic agents.

9. The process as claimed in one of the preceding claims, characterized in that the cooling during step b) is performed using a liquid, preferably with water.

10. The process as claimed in one of the preceding claims, characterized in that the pearl obtained has a diameter of less than or equal to 10 mm and preferably less than or equal to 5 mm.

11. The process as claimed in one of the preceding claims, characterized in that the pearl obtained has a mass per unit volume of less than or equal to  $0.8 \text{ g/cm}^3$ , preferably less than or equal to  $0.5 \text{ g/cm}^3$  and even more preferentially less than or equal to  $0.3 \text{ g/cm}^3$ .

12. A pearl based on expanded polyamide or polyester having a continuous skin.

13. The pearl as claimed in claim 12, characterized in that it has a diameter of less than or equal to 10 mm and preferably less than or equal to 5 mm.

14. The pearl as claimed in claim 12 or 13, characterized in that it has a mass per unit volume of less than or equal to  $0.8 \text{ g/cm}^3$ , preferably less than or equal to  $0.5 \text{ g/cm}^3$  and even more preferentially less than or equal to  $0.3 \text{ g/cm}^3$ .

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